

# **NOTIFICATION OF ADDENDUM**

## **ADDENDUM NO. 1**

**DATED 1/28/2015**

<b>Control</b>	<b>0014-23-034</b>
<b>Project</b>	<b>NH 2015(597)</b>
<b>Highway</b>	<b>IH 35W</b>
<b>County</b>	<b>HILL</b>

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: NH 2015(597)

CONTROL: 0014-23-034

COUNTY: HILL

LETTING: 02/03/2015

REFERENCE NO: 0127

**PROPOSAL ADDENDUMS**

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\_ PROPOSAL COVER

\_ BID INSERTS (SH. NO.:

X GENERAL NOTES (SH. NO.: L

\_ SPEC LIST (SH. NO.:

\_ SPECIAL PROVISIONS:

ADDED:

DELETED:

\_ SPECIAL SPECIFICATIONS:

ADDED:

DELETED:

\_ OTHER:

DESCRIPTION OF ABOVE CHANGES

(INCLUDING PLANS SHEET CHANGES)

GENERAL NOTES:

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ON SPEC DATA SHEET "L" DELETED LAST NOTE UNDER ITEM 354.

PLAN SHEETS:

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SHEET 3 - TYPICAL SECTION.

REVISED DETAIL A.

SHEET 4E - GENERAL NOTES.

REVISED SHEET AS DESCRIBED ABOVE IN GENERAL NOTES.

SHEET 7 - TRAFFIC CONTROL AND SEQUENCE OF OPERATION.

REVISED 3RD NOTE UNDER SEQUENCE OF OPERATION.

**GENERAL NOTES AND SPECIFICATION DATA****Basis of Estimate**

Item	Description	Rate	Basis	Quantities
3233	SPRAY APPLIED MEMBRANE UNDERSEAL	0.25 GAL / SY	320,998 SY	80,250 GAL
3271	STONE-MATIX ASPHALT			
	STONE-MTRX-ASPH SMA-D SAC-A PG76-22	165 LBS / SY	320,998 SY	26,482 TON

**Basis of Estimate – Alternate Bid**

Item	Description	Rate	Basis	Quantities
316	UNDERSEAL			
	AGGR (TY-PD GR-5 OR TY-PL GR-5)	1 CY / 140 SY	320,998 SY	2,293 CY
	ASPH (AC-15P, AC-20XP, AC10-2TR, AC-12-5TR)	0.25 GAL / SY	320,998 SY	80,250 GAL

**GENERAL NOTES****ITEM 4: SCOPE OF WORK**

All new and existing concrete adjacent to the roadway must be free of stains, dirt, tire marks, etc., at the time of final acceptance. These items include but are not limited to bridge rails curb and gutter, inlets and riprap. Blast cleaning of these items will be required to achieve acceptance of the project and will be considered subsidiary to the applicable bid items.

During final clean-up the contractor will be required to remove any foreign material that has accumulated at all bridge abutments and bent caps. The removal of foreign material shall be performed in a manner approved by the Engineer. All work and equipment involved in the removal of this material will be subsidiary to the various bid items of the contract.

**ITEM 5: CONTROL OF THE WORK**

Prior to beginning work in the area of existing utilities, the contractor shall consult with the utility companies for exact locations to prevent any damage or interference with present facilities. This action shall in no way be interpreted as relieving the contractor of his responsibilities, under the terms of the contract and as set out in the plans and specifications. The contractor shall repair any damage caused by his operations, at his own expense and shall restore facilities to service in a timely manner.

**ITEM 6: CONTROL OF MATERIALS**

Mixing of materials, storing of materials, storing of equipment, or repairing of equipment on top of concrete pavement or bridge decks will not be permitted unless specifically authorized by the Engineer. Permission will be granted to store materials on surfaces if, in the opinion of the Engineer, no damage or discoloration will result.

References to manufacturer's trade name or catalog numbers are for the purpose of identification only and the contractor will be permitted to furnish like materials of other manufacturers provided they are of equal quality and comply with specifications for this project and are approved by the Engineer.

**ITEM 7: LEGAL RELATIONS AND RESPONSIBILITIES**

The use of existing or new bridges for staging construction equipment or materials will not be permitted without written approval by the Engineer. To obtain this approval submit a working plan to the Engineer including loading information, spacing and dimensions. This working plan must be signed and sealed by a licensed or registered Professional Engineer.

If utilizing private property for waste disposal sites, field office sites, equipment storage sites or for any other purpose involved with this project, provide to the Engineer written proof of the property owner's approval of the use of this property. This proof may be in the form of a letter or agreement signed by the property owner or other documents acceptable to the Engineer.

Where existing pavement adjoins new pavement, saw the existing pavement to a neat transverse and/or longitudinal line to permit adequate joining. This will not be paid for directly, but will be considered subsidiary to the various bid items.

Protect all adjoining pavement sections during all phases of construction. Any damages incurred due to contractors operation shall be repaired and/or replaced at the contractor's expense.

The contractor shall restrict movement of construction equipment and haul trucks to all paved surfaces and will be prohibited from crossing the median unless specifically authorized by the Engineer. Ingress and egress to the freeway main-lanes shall be through the use of entrance and exit ramps.

All materials, labor and incidentals required for the contractor to provide for traffic across the highway and for all weather ingress and egress to public and private property in accordance with Item 7.7 of the standard specifications shall be considered as incidental to the various bid items. When construction is completed the access roadways will be restored to their original condition, as approved by the Engineer.

Personal vehicles of the contractor's employees shall not be parked within the right-of-way at anytime including any section closed to public traffic, unless the vehicle is being utilized for construction procedures. However the contractor's employees may park on the right-of-way at the sites where the contractor has his office, equipment and materials storage yard.

The contractor shall not initiate activities in a project specific location (PSL) associated with a U.S. Army Corps of Engineers (USACE) permit area that has not been previously evaluated by the USACE as part of the permit review of this project. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow and disposal sites. Associated defined here means materials are delivered to or from the PSL. The permit area includes all waters of the U.S. or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. The contractor shall be responsible for any and all consultations with the USACE regarding activities, including project specific locations (PSLs), which have not been previously evaluated by the USACE. The Contractor shall provide the department with a copy of all consultation(s) or approval(s) from the USACE prior to initiating activities.

The contractor may proceed with activities in PSLs that do not affect a USACE permit area if a self determination has been made that the PSL is non-jurisdictional or proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. The contractor is solely responsible for documenting any determination(s) that their activities do not affect a USACE permit area. The contractor shall maintain copies of their determination(s) for review by the department or any regulatory agency.

The contractor must document and coordinate with the USACE, if required, prior to any excavation hauled from or embankment hauled into a USACE permit area by either (1) or (2) below.

- (1) Restricted Use of Materials for the Previously Evaluated Permit Areas. The Contractor will document both the project specific location (PSL) and their authorization. The contractor will maintain copies for review by the department or any regulatory agency. When an area within the project limits has been evaluated by the USACE as part of the permit process for this project:
  - a. Suitable excavation of required material in the areas shown on the plans and cross sections as specified in Item 110 is used for permanent or temporary fill (Item 132, Embankment) within a USACE permit area;
  - b. Suitable embankment (Item 132) from within the USACE permit area is used as fill within a USACE evaluated area; and,
  - c. Unsuitable excavation or excess excavation ["Waste"] (Item 110) that is disposed of at a location approved by the Engineer within a USACE evaluated area.

- (2) Contractor Materials from Areas Other than Previously Evaluated Areas. The Contractor will provide the department with a copy of all USACE coordination or approval(s) prior to initiating any activities for an area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow and disposal sites:
- a. Item 132, Embankment, used for temporary or permanent fill within a USACE permit area; and,
  - b. Unsuitable excavation or excess excavation ["Waste"] (Item 110, Excavation) that is disposed of outside a USACE evaluated area.

The total area disturbed for this project is 0.0 acres. The disturbed area in this project, all project locations in the Contract, and the Contractor project specific locations (PSLs), within 1 mile of the project limits, for the Contract will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI to the Engineer and to the local government that operates a separate storm sewer system.

Throughout the course of the project, when in the opinion of the Engineer, tall grass and weeds affect the safety of the public by restricting visibility, interfere with normal traffic flow or appear unsightly, the contractor shall be required to mow same. This work will not be paid for directly but will be considered as subsidiary to the various bid items.

Remove all vegetation from pavement edges, intersections and driveways prior to planing, seal coat or ACP operations. This work will not be paid for directly but will be subsidiary to the various bid items.

The contractor is alerted to the possible presence of swallows under the existing bridges or culverts. Because the migratory bird treaty act prohibits harm to swallows, their eggs or their nestlings, the contractor shall not begin potentially disturbing activities on or near the bridge until the birds have abandoned any occupied nests (approximately September 1). Active nests may not be removed regardless of the date.

Prior to the swallows returning to the nests (approximately March 1), abandoned nests shall be removed from the bridge. The contractor shall prevent the establishment of new nests on any portion of the structure. Methods for preventing the establishment of new nests must be approved by the project engineer. Examples of acceptable nest prevention methods are bird-deterrent netting and bird-repelling sprays and/or gels to be applied to the structure. This work will not be paid for directly, but will be subsidiary to the various bid items.

The Contractor shall not dispose of or place demolished highway and bridge materials within any Waters of the US, wetland or within the Ordinary High Water Marks of any 404 stream, either on or off TxDOT property.

The Contractor shall maintain all PSLs in an acceptable manner by removing empty chemical containers / drums, disposal of trash and debris, cleanup and disposal of spills and the proper storage of fuels. PSLs shall not be used as a waste dumping area or for storage of removed trees or brush. Proper BMPs should be maintained for disturbed or stockpiled soils and seeding completed per permit requirements.

### **General Notes for Work in Waters of the US**

1. TxDOT will establish “limits of waters of the United States” to designate stream banks (Ordinary High Water Marks) and wetland boundaries for the project with wood lathing and flagging. These areas have specific Corps of Engineer 404 permit requirements as stated in the following notes.
2. For bridges, the contractor shall provide and maintain orange plastic security fencing (called orange fencing) slightly above the Ordinary High Water Marks, on each side of the stream and from ROW line to ROW line. For culverts, the contractor shall provide and maintain orange fencing slightly above the Ordinary High Water Marks, on each side of the stream on the upstream and downstream culvert ends outside the limits of permanent facilities to the ROW lines. No construction activities or access below the orange fencing shall be allowed, unless approved by TxDOT. The boundaries for wetland areas shall also be established with orange fencing and timber mats must be used to support heavy equipment.
3. The Contractor shall submit detailed site specific plans for work in each “water of the United States” designated on the EPIC sheet. These plans must be approved by the TxDOT Engineer prior to starting any work in these areas. The plans must also describe facilities and work activities adjacent the Ordinary High Water Marks. The plan must show actual dimensions and materials for:
  - Proposed construction roads and work areas leading to or in close proximity the Ordinary High Water Marks
  - Temporary material or equipment storage areas in close proximity to the Ordinary High Water Marks
  - Locations of proposed sediment and erosion control devices
  - Identification of construction equipment and construction techniques to accomplish the work

Once this drawing and supporting information is reviewed and approved by TxDOT, all construction workers should be made aware of the limits designated on the drawings by the Contractor's supervision. Work in all waters of the US will be limited to the minimum necessary required to construct the bridge, culvert or roadway fills. Work shall also include all activities needed for bridge and culvert demolitions. Working or disturbing soil in the stream channel outside the limits of the work plan will not be allowed. Orange fencing shall be provided and maintained to establish the TxDOT approved boundaries in which work may be conducted between the Ordinary High Water Marks. Orange fencing will not be paid for but will be considered subsidiary to Item 502, "Barricades, Signs and Traffic Handling".

4. Storm water from disturbed soil areas draining towards wetlands shall either be re-routed or adequate sediment control devices installed to protect the wetland.

5. The Contractor shall select concrete bridge demolition methods that will meet all 404 requirements. Bridge demolition between Ordinary High Water Marks may typically include bridge slabs, girders, columns and foundations. The use of jack hammers or crushing techniques shall be conducted over timber mats wide enough for the downed bridge and for access and use of construction equipment to fully remove the wrecked structure. Concrete structures requiring demolition shall not be fully processed into small pieces between the Ordinary High Water Marks. Large sections of the wrecked concrete structure should be lifted or moved to an upland area for further processing with the processing area using appropriate sediment control devices. Demolitions should be avoided during high stream levels. Efforts shall be made to minimize bridge rubble, including fine concrete materials produced through the demolition process, water from saw cutting activities or soils moved during demolition activities from entering the stream.

6. The construction or demolition of culverts should take place in a manner that does not block the flow in a 404 stream. Removal or demolition of bridge class culverts should be accomplished similar to bridge demolitions, but timber mats are not required. Efforts shall be made to minimize culvert rubble, including fine concrete materials produced through the demolition process, concrete saw cutting water or soils moved during demolition activities from entering the stream. Minimal stream channel disturbance should occur both upstream and downstream of culverts between the Ordinary High Water Marks.

7. No excavated material, including spoils from drill shafts shall be deposited within the Ordinary High Water Marks at any time. Excavated material shall be immediately hauled to an approved temporary upland material storage area on TxDOT ROW. Excess material shall be hauled from the project site or spread above the stream bank limits as directed by the TxDOT Engineer. Adequate stabilization and sediment control devices shall be provided for soil materials spread and graded above the stream bank limits on TxDOT ROW.



**8.** No equipment or chemicals shall be stored overnight within waters of the US (between the Ordinary High Water Marks). Special care shall be taken to contain all sanitary waste, petroleum products or chemicals from leaking or entering the stream. The Contractor shall make provisions to collect all construction related trash and debris each work day and to provide adequate containers for storage and removal.

**9.** Upon completion of work, all excess construction materials, construction debris, timber mats, shall be carefully removed from between the Ordinary High Water Marks of the stream while minimizing additional earth disturbance, protecting existing aquatic vegetation and limiting stream turbidity. Timber mats, located below the Ordinary High Water Marks shall be carefully removed by construction equipment located above the Ordinary High Water Marks. Stream shaping below the Ordinary High Water Marks, after removal of timber mats or other construction activities shall only be conducted when directed by TxDOT.

**10.** Adequate sediment and erosion control devices shall be installed to preclude sediment from entering the stream and to the requirements of the storm water permit. Continuous silt fences with angled end sections and / or rock filter dams shall be installed along the entire length of disturbed soils, slightly above and parallel the High Water Marks of the stream and upslope of orange fencing specified in Item 2. No rock filter dams or other controls shall be installed across 404 streams below the Ordinary High Water Marks for either bridge or culvert installations. Large diameter compost logs shall typically be used on the boundaries of timber mats located between the Ordinary High Water Marks. Vegetation shall be established as soon as possible, beginning immediately when areas are brought to the proper lines and grades. Soil retention blankets and channel liners are encouraged to minimize erosion and promote vegetation development.

**11.** During any construction or demolition operations, soil shall never be pushed from the high bank into the stream channel below the Ordinary High Water Marks. Soil may be removed and shaped as necessary along the stream bank slopes above the Ordinary High Water Marks to facilitate construction with excess material being moved to high ground.

**12.** Trees removed between the Ordinary High Water Marks shall be saw cut. No mobile construction equipment shall be used to remove vegetation between the Ordinary High Water Marks. Trees will be cut flush with the ground level and pulled above the Ordinary High Water Marks for further processing. Only trees designated by the TxDOT Engineer shall be removed. No chemicals or stump grinding shall be used between the Ordinary High Water Marks. Follow all local ordinances when burning cleared trees or brush.

**13.** No water shall be pumped from any water of the US without a permit from the appropriate River Authority or the Texas Commission on Environmental Quality. Upland stock tanks are exempt from this requirement.

**14.** Temporary construction roads or ramps, if approved by the Engineer, shall be constructed of material that will not erode and transport fine grain sediment downstream under high flows. Acceptable earthwork materials shall be rock material of 4" to 6" inch diameter. The use of rock and inert materials such as structural steel sections, wood mats, concrete mats, filter fabrics and concrete barriers shall be acceptable to build roads and ramps. Fills consisting of clay, sands or other fine grain materials shall not be used between the Ordinary High Water Marks. Loose earth materials generated by excavation between the Ordinary High Water Marks shall be re-compacted or moved to a high bank area before the end of each day. Temporary construction roads and ramps shall be removed as soon as possible and the stream channel returned to a near original condition. Earth materials (clays and sand) that fall from construction equipment onto roads or ramps, between the Ordinary High Water Marks, shall be cleaned and removed daily. Heavy duty wood mats are required for the operating surface for all temporary stream crossings and equipment platforms between Ordinary High Water Marks. Heavy duty wood mats are also required for all temporary stream crossings including shallow stream channels and stream channels with solid rock bottoms. Mats used without rock fill and that does not block flow in the stream channel can be used without a temporary culvert. Mats should be sized to be structurally sound under all equipment loads.

**15.** Temporary erosion control shall be provided by rock or gunnite/shotcrete and shall be provided to minimize erosion and limit sediment entering stream channels. The Contractor shall minimize the time duration for leaving steep cut or fill areas that concentrate storm water flows and promotes erosion near stream channels. Additionally, the Contractor shall not store or leave loose construction related soils located near or in stream channels.

**16.** Sediment found in 404 streams from the project, both on and off TxDOT property, shall be removed with equipment that will cause minimum disturbance to the stream channel. The Contractor is to remove the sediment to a location on the high bank outside of the Ordinary High Water Marks.

**17.** To facilitate culvert or bridge construction work, low stream flows may be temporarily pumped or routed around construction activities. Stream flow should not be stopped. To facilitate pumping or routing of low flows, whatever sumps or obstructions used to control the stream flow shall not be constructed of fine grained clays or sands.

The contractor shall be familiar with the right-of-way map and the location of all the right-of-way monumentation.

Care shall be taken by the contractor and its subcontractors to protect and avoid disturbance to the right-of-way monumentation.

If right-of-way monumentation is disturbed by the contractor, or its subcontractor, the contractor shall notify the inspector. Monuments which are disturbed by the contractor, or its subcontractor, shall be restored by a Registered Professional Land Surveyor designated by the Texas Department of Transportation District Surveyor at the expense of the contractor.

**ITEM 8: PROSECUTION AND PROGRESS**

For this project, working day charges will be charged in accordance with Section 8.3.A.1, "Five-Day Workweek".

Prior to contract letting, the conceptual construction schedule as developed for the contract time determination will be made available by the state at the Area Engineers' office for prospective bidders review. The schedule will be in hard copy form and made available for copying by the contractor. This supplied schedule is for informational purposes only. It is the responsibility of the prospective bidder to determine a construction schedule for the work in this contract.

In addition to the requirements in Special Provisions to Item 8, construction schedules provided by the Contractor shall include line items required to maintain compliance with the storm water permit. Those line items shall include, but not be limited to installing / removing storm water sediment controls, installing soil retention blankets/channel liners, top soil / compost placement, seeding (temporary and permanent), and placement of permanent erosion controls, earthwork and grading.

The Contractor must insure that adequate personnel and equipment will be used for this work. All equipment used after sunset shall be properly equipped for night work.

A minimum of one travel lane shall remain open to traffic at all times during construction.

Work requiring lane closures will be restricted to the nights indicated:

Sunday 10 PM – Monday 7 AM  
Monday 7 PM – Tuesday 7 AM  
Tuesday 7 PM – Wednesday 7 AM  
Wednesday 7 PM – Thursday 7 AM  
Thursday 9 PM – Friday 7 AM

The Contractor's attention is called to the fact that work requiring lane closures will be restricted to the nights indicated above. Supplemental lighting in addition to lighting on equipment and work vehicles will be required to insure adequate lighting for workers safety and inspection. All operations including planing, underseal and HMA placement must be adequately lighted using supplemental lighting of the "balloon type". This lighting is subject to the approval of the Engineer. Supplemental lighting shall be added to the milling machine, asphalt distributor, aggregate spreader, rollers and laydown machine unless otherwise approved by the Engineer. This is considered subsidiary to the various bid Items of the contract.

Placement of traffic control devices for night operations shall not commence until after the start time and all devices shall be removed from the roadway prior to the finish time. All other work not requiring lane closures can be done during daytime work hours.

No lane, ramp, or freeway closures shall be allowed on Fridays or Saturdays. If approved by the Engineer in writing, Freeway closures shall be done on Sunday mornings between 30 minutes after sunrise to 10:00 AM.

No lane, ramp or freeway closures will be allowed at any hour during the week between Christmas Eve and New Year's Day.

Unless otherwise approved by the Engineer, no mainlane, ramp or freeway closures will be allowed between 7 AM Friday and 10 PM Sunday. In addition, these closures will not be allowed:

- On Good Friday,
- Until midnight Easter Sunday,
- Until midnight Sunday before and after Spring Break, which is typically the second, third and fourth weeks of March,
- Until midnight Sunday of Texas/Oklahoma football game weekend,
- After 7 AM Tuesday before Thanksgiving Day thru midnight Sunday after Thanksgiving,
- After 7 AM December 23 through 7 PM January 2,
- Or on any other high traffic days or holidays as determined by the Engineer.

In the event utility lines needing unforeseen adjustments are encountered during construction operations, alter operations and continue to prosecute the contract in such a manner that will allow utility adjustments to be made by others.

For all subcontracts, physically attach all provisions listed in the "Contractor's Assurance" to the subcontract agreement. Provide a copy of subcontracts, with attachments, for all DBE Subcontractors. Submit the subcontracts to the Engineer when submitting the subcontract approval request.

#### **ITEM 302: AGGREGATES FOR SURFACE TREATMENTS**

The pre-coated aggregate target value for residual bitumen shall be determined by the Engineer. This value shall be in the range of 0.5 to 1.5 % by weight of residual bitumen from a pre-coating material.

#### **ITEM 316 AND 3271: SURFACE TREATMENTS AND STONE-MATRIX ASPHALT**

No asphalt treatments shall be applied just prior to a rain event that could result in chemical asphalt or any asphalt by-product pollutant being washed into stream.

The Contractor may request approval from TxDOT to clean equipment located on TxDOT ROW which is engaged in asphalt work such as trucks, lay down machines, and distributors. TxDOT may allow cleaning of asphalt equipment on TxDOT ROW only when all of the following conditions are met on a continuous basis: 1. Cleanup activities must take place no closer than 300 feet from an off ROW drainage discharge. 2. No diesel or fuel is used for cleaning. 3. The names of all cleaning agents have been previously submitted to TxDOT and the Contractor has submitted both a spill prevention and cleanup plan for the cleaning chemicals being used. 4. All excess asphaltic products originally planned to be used for road construction but deposited along the roadway edge due to having too much material, or due to equipment start/stops and minor equipment upsets shall be properly removed off ROW or to a location approved by TxDot within 48 hours.

### **ITEM 316: SURFACE TREATMENTS**

The Engineer will select the asphalt for surface treatments from the types and grades shown on the plans.

No asphalt for surface treatment items will be placed between September 15 and May 1 for AC unless approved by the Engineer in writing.

AC-15P, AC 10-2TR and AC 20-XP are for warm season use and are not to be placed between September 15 and May 1. AC 12-5TR is for cool season use and can be placed in accordance with the suppliers recommendations and only as authorized by the Engineer.

All trucks hauling materials to be paid for by truck measurement shall be “struck off” prior to delivery to the project.

Protect all existing bridges, curbs, and other exposed concrete surfaces within the limits of these projects from asphalt materials by any method that is acceptable by the Engineer. Remove any excessive asphalt materials deposited on these surfaces in a manner approved by the Engineer at the contractor’s expense.

During application of the surface treatment, if existing conditions warrant, the lane widths, transitions, and intersection areas may be varied as directed by the Engineer.

Use a medium pneumatic roller meeting the requirements of Item 210, “Rolling”, as directed by the Engineer. This work will be subsidiary to the various bid items.

Remove dirt and debris that has accumulated in the curb and gutter sections prior to beginning paving. Likewise, remove all vegetation from pavement edges prior to seal coat operations. This work will be subsidiary to other items.

Unless otherwise approved by the Engineer, seal coat shall not be exposed to traffic for more than 5 calendar days before application of HMA or CAM mixture.

**ITEM 351: FLEXIBLE PAVEMENT STRUCTURE REPAIR**

Provide 8 inches of D-GR HMA TY B PG 64-22 for all repairs. D-GR HMA TY B PG 64-22 Will not be measured but considered subsidiary to Item 351, "Flexible Pavement Structure Repair."

Locations and Quantities will vary as directed by the Engineer. The minimum area to be repaired Shall be 5 SY

**ITEM 354: PLANING AND TEXTURING PAVEMENT**

The top 1.5 inches (approximately) of existing asphalt pavement is suitable and available for re-use in all courses of hot mix.

RAP generated on the project and not re-incorporated into the project shall become the property of The Contractor and be removed from the project.

~~Planing and texturing operations shall be limited to an area that will be resurfaced during the same day's operation as the existing pavement was removed.~~

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**ITEM 502: BARRICADES, SIGNS AND TRAFFIC HANDLING**

The Contractor Force Account "Safety Contingency" that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the Traffic Control Plan, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor's Responsible Person based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

A meeting between the contractor and Engineer to discuss upcoming changes in construction phasing and traffic switches is required at least 14 days prior to the phase change. Items to be discussed at this meeting include temporary signing, traffic control, pavement markings, the processes necessary for the phase change and subcontractor scheduling.

Schedule and execute the work such that the portion of the roadway not sealed and striped at any given time is kept to a minimum and is no more than 2 miles.

All signs, delineators, object markers, and route markers shall be in place prior to opening each phase of construction to traffic.

Law enforcement assistance will be required for this project and is expected to be required for major traffic control changes and lane closures. Coordinate with local law enforcement and arrange for law enforcement as directed or agreed by the Engineer. These peace officers and vehicles will be paid for by force account. Complete the weekly tracking form provided by the department and submit invoices that agree with the tracking form for payment at the end of each month approved services were provided.

Provide full-time off-duty uniformed certified peace officers in officially marked vehicles with highly visible light bars and or strobe lights, as part of traffic control operations. The peace officers shall be able to show proof of certification by the Texas Commission on Law Enforcement Officer Standards. It is intended that two marked vehicles be utilized for each lane closure, with one vehicle positioned near the beginning of the lane taper and the other vehicle proceed moving to position itself to be in advance of the traffic queue to sufficiently warn approach vehicles of slowed or stopped traffic.

Provide uniformed, licensed peace officers, with officially marked vehicles with light bars and or strobe lights for traffic control during construction operations at and/or near the following high volume intersection(s): unless other traffic control measures are approved by the Engineer.

The Contractor Responsible Person (CRP) for Work Zone Traffic Controls shall inspect and insure any deficiencies are corrected each and every day throughout the duration of this contract. Any misaligned or damaged traffic control devices shall be repaired as soon as practical after deficiency is discovered.

In addition to providing a Contractor's Responsible Person and a phone number for emergency contact, have an employee(s) available to respond on the project for emergencies and for taking corrective measures within 30 minutes.

Place advisory speed plates (CW13-1) in accordance with the TMUTCD and as directed by the Engineer. Signs (CW13-1) shall not be used with any signs other than a warning sign, nor shall it be used alone. Sign mounting height shall be seven (7) feet minimum to the bottom of the speed plate.

The **shadow vehicle** with truck mounted attenuator (TMA) will not be optional but will be required as shown on the appropriate traffic control plan sheets. Truck mounted attenuators shall meet the requirements of the Compliant Work Zone Traffic Control Device List. The use of truck mounted attenuators shall not be paid for directly, but shall be considered subsidiary to Item 502.

Open the pavement to traffic each night. Remove all material stockpiles, equipment left overnight or any obstruction within 30 feet of a travel way or clearly mark by warning lights and barricades, as approved by the Engineer.

Arrange construction operations to prevent the hauling of materials through the completed pavement sections unless otherwise approved by the Engineer.

When excavation is required next to a travel lane carrying traffic and widening is not completed by the end of the day's operation, and unless otherwise permitted in the plans, place sufficient backfill against the edge of the travel lane in order to provide a 3:1 slope. The backfill used shall be durable crushed stone type of flexible base or other materials approved by the Engineer. When work is resumed on this excavated area this backfill material shall be incorporated into the road work or disposed of as approved by the Engineer. Materials and labor for this work will not be paid for directly but will be subsidiary to the various bid items.

Prior to beginning work, the Contractor and Engineer shall agree on the allowable length of lane closure.

Equip all construction equipment involved in roadway work with a permanently mounted warning light with amber lens as approved by the Engineer.

For nighttime flagging operations, each flagger station shall be lighted with portable light plants using balloon-type fixtures approved by the Engineer. The flagger shall wear Class 3 reflective garments. Lights shall be positioned as to not blind motorists.

All night time operation including planning, underseal, HMAC placement, bridge construction, concrete paving, etc. must be adequately lighted using balloon-type lights.

#### **ITEM 504: FACILITIES FOR FIELD OFFICE AND LABORATORY**

Furnish for the Engineer's exclusive use a laboratory meeting the specified Type D structure. The building shall be located at the contractor's hot mix plant site and be separate from the contractor's laboratory.

The use of space heaters for the purpose of heating the structure is unacceptable. The building must be structurally sound and pose no safety hazards. The laboratory must meet all the above requirements within two (2) weeks prior to beginning of work.

#### **ITEM 585: RIDE QUALITY FOR PAVEMENT SURFACES**

The ride quality for the pavement surface shall be surface test TYPE B along the finished riding surface of all travel lanes as defined below:

Schedule 2 will be used for IH 35 overlays.

All other roads shall be surface test TYPE A.

Milling will not be allowed as a corrective action for excessive deviations in the surface layer of hot mix.



**ITEM 662: WORK ZONE PAVEMENT MARKINGS**

Lane lines for transitions and detours will consist of raised pavement markers as shown for solid lines on the Barricade and Construction Standards Work Zone Pavement Marking Details.

Paint and beads may be used for non-removable pavement markings.

**ITEM 672: RAISED PAVEMENT MARKINGS**

Place TYPE II-C-R for lane lines on 80 feet centers regardless of the conditions listed on the Pavement Markings Standard Details.

Before the application of pavement markers, sufficiently clean pavement surfaces to remove all forms of contamination and loose materials, in accordance with Item 678, "Pavement Surface Preparation for Markings". This work will not be paid for directly, but will be subsidiary to Item 672, "Raised Pavement Markers".

Remove at own expense markings placed that are not in alignment or sequence, as shown on the standard sheets or as stated in the specifications, or do not meet the specification and/or approval of the Project Manager. Removal shall be in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers", except for measurement and payment.

Mount all raised pavement markers placed on concrete surfaces using an epoxy adhesive, in accordance with Article 672.3.

**ITEM 1122: TEMPORARY EROSION, SEDIMENTATION AND ENVIRONMENTAL CONTROLS**

No soil disturbing activities shall begin on any section of TxDOT ROW without adequate sedimentation controls first being installed and functioning at adjacent drainage outfalls. Begin and continuously prosecute the repairs, additions and maintenance of erosion and sedimentation control devices within seven days after the Contractor receives each Form 2118, Field Inspection and Maintenance Report, from the Engineer. Failure of the Contractor to fulfill either of the above requirements places TxDOT in potential non-compliance with permit requirements and may result in withholding estimates or stopping work or both until all environmental permit requirements are fulfilled.

Furnish one SW3P permit posting sign and sign support as detailed in the plans. Install this sign in a location selected by the Engineer. The sign and support should be removed upon completion of the project and is the property of the Contractor. The purchase of the sign and support, installation, relocation(s) if determined necessary by the Engineer and removal at project end shall be subsidiary to Item 1122, "Temporary Erosion, Sedimentation and Environmental Controls".

The SW3P for this contract shall consist of using, as directed by the Engineer, any erosion or water pollution control measure deemed necessary by the Engineer. Any erosion or water pollution control measure deemed necessary by the engineer shall be implemented by the Contractor as prescribed by this item and in accordance with the applicable specification. Payment for erosion control measures for which applicable pay items are not included in the contract shall be made in accordance with article 9.5, "Force Account."

**ITEM 3271: STONE- MATRIX ASPHALT**

The contractor shall provide a ticket writer during hot-mix operations.

RAP will be allowed in all types of hot-mix under this item. The RAP must be obtained from the top 1.5 inches of asphalt pavement on this project or from one of the approved state owned stockpiles. The locations and availability of the RAP at various state owned stockpiles can be obtained from the Engineer at the time of letting.

RAP from Contractor owned sources may be used if the RAP is fractionated. The coarse fraction of Contractor owned RAP will not be allowed if it consists primarily of siliceous aggregates.

Hydrated lime or an approved liquid surfactant-based warm mix additive shall be added to the hot-mix asphalt as an additive to improve quality of the mixture. The lime shall be added at a rate of 1% by weight of the total aggregate. The lime shall meet the requirements of TYPE A, hydrated lime, or TYPE B, commercial lime slurry, that meets the requirements of DMS-6350, "Lime and Lime Slurry". The lime shall be added to the fine aggregate, pug mill mixed and stockpiled a minimum of 24 hours prior to introduction to mixing plant. Other methods of adding lime that produce comparable results and that are acceptable to the Engineer may be considered. Lime shall not be paid for directly, but will be considered as subsidiary to various bid items. The warm mix additive shall be added at the rate recommended by the manufacturer. The warm Mix additive shall be metered and injected into the liquid asphalt at the mixing plant or as approved by the Engineer. Warm Mix Additive shall not be paid for directly, but will be considered subsidiary to various bid items.

Provide methods and proposed documentation acceptable to the Engineer before beginning production that verifies the addition of lime or liquid surfactant-based warm mix additive as required above in the various mixes. Necessary equipment and additions to the plant to document and verify these quantities in the mixtures will be subsidiary to the HMAC items.

Evaluate the mixture proposed for use for moisture susceptibility in the mixture design and production stages by test method TEX-530-C, unless otherwise directed by the Engineer. Maximum stripping of 0% is required. If more than 0% stripping occurs, additional anti-stripping agent, Lime or liquid warm mix additive may be required.

For this contract, provide a continuous flow of material to the paver by means of a self-propelled MATERIAL TRANSFER VEHICLE (MTV). The (MTV) shall consist of a mobile hopper with a Sufficient storage capacity and conveyor that will provide a non-stop placement of the hot-mix Asphalt pavement for the courses on the traffic lanes and shoulders. The (MTV) shall have a System of augers or other approved systems to remix the mixture during the transfer process. The Engineer shall approve the (MTV) before use. This is required to minimize segregation and improve the ride quality.

If contractor elects to use the Pave-IR system, an (MTV) is not required.

Utilize a paver ski or mobile string line at least 40 feet long during placement of all hot-mix placed with an asphalt paver unless otherwise approved by the Engineer.

Any Truck Bed Releasing Agent shall be approved by the Engineer.

For hot-mix overlay tie-ins to existing hot-mix pavement, provide a butt joint by milling a 2 inch to 0 inch taper over a minimum of 50 feet. This work will not be paid directly, but shall be considered subsidiary to the various bid items.

For tests specified by the Engineer, enter testing data in Department-provided electronic testing template spreadsheets. Submit electronically to the Engineer at the interval directed by the Engineer.

Target laboratory-molded density shall be 97% if the Texas Gyratory Compactor is used for Design and production control.

The placement pay factors for shoulders placed separately from travel lanes shall be based on in-place air void determinations.

#### **ITEM 6473: MULTIPOLYMER PAVEMENT MARKINGS**

Apply beads using a single drop application process. Use an application rate of 12 pounds per 100 square feet of thermoplastic pavement marking material.

The Contractor shall provide traffic control for this activity as approved by the Engineer.

Before the application of pavement markings, sufficiently clean pavement surfaces to remove all forms of contamination and loose materials, in accordance with Item 678, "Pavement Surface Preparation for Markings". This work will not be paid for directly, but will be subsidiary to Item 6473 "Multipolymer Pavement Markings".

Remove markings at own expense that are not in alignment or sequence, as shown on the standard sheets or as stated in the specifications, or do not meet the specification and/or approval of the Project Manager. Removal shall be in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers", except for measurement and payment.

**ITEM 6834: PORTABLE CHANGEABLE MESSAGE SIGN**

Furnish 2 portable changeable message signs. The portable changeable message sign(s) shall be used for all lane closures and freeway closures as shown on the traffic control plan standard sheets. This project shall require a "Full Matrix" type Portable Changeable Message Sign.

Supply portable changeable message sign(s) in accordance with the Traffic Control Plan standard sheets and article 6f.55 of the Texas Manual on Uniform Traffic Control Devices for Streets and Highways part VI.